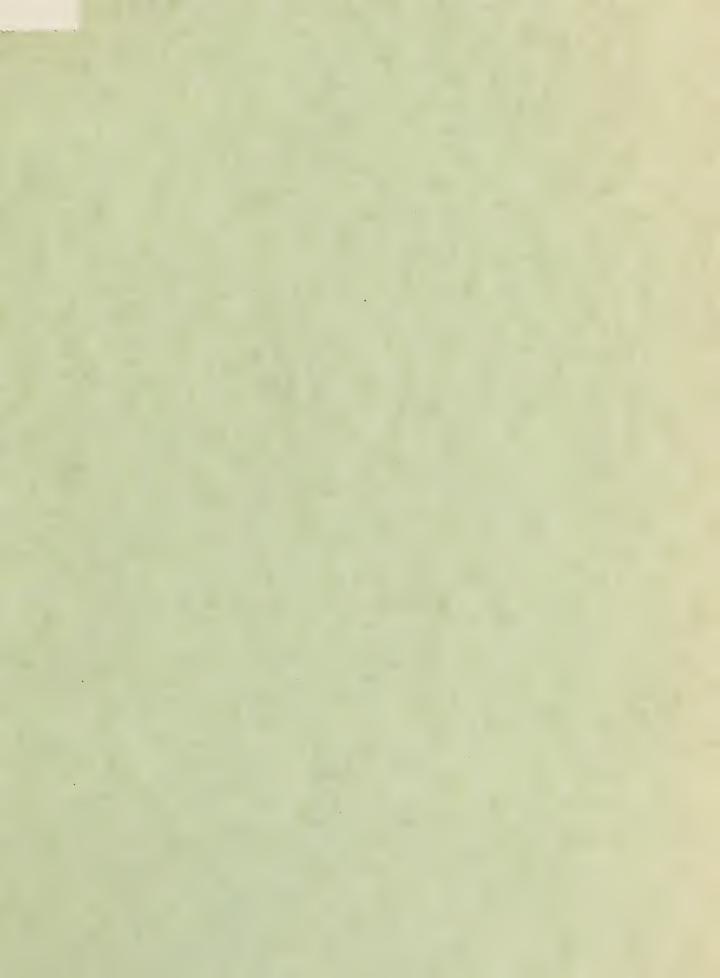
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REPORT OF 1955 GROUP OF BRAZILIAN AGRICULTURAL COLLEGE AND STATION DIRECTORS

As a result of the invitation that FOA extended to Brazilian Experiment Station and College Directors through the "Escritorio Tecnico Agricola Brasil - Estados Unidos", we, the Second Group, have accomplished a study-program with valuable observations gathered at universities and experimental stations in the United States, including Puerto Rico.

Special reasons contributed to the considerable reduction in the number of participants. From 20 or more invited, only four were able to participate, namely:

Ruy Alves de Araujo
Director of the Instituto Agronomico de Minas Gerais,
Secretaria da Agricultura (State Government)
Belo Horizonte

Renato Ramos de Farias
Director of the Instituto Agronomico do Nordeste,
Ministerio da Agricultura (Federal Government)
Recife

Gastao Dias de Castro
Director of the Escola de Agronomia e Veteriaria do Rio Grande
do Sul,
Porto Alegre

Agostinho Bernardo da Veiga

Director of the Escola de Agronomia E Veterinaria do Parana

Curitiba

The number of our Project was PIO 12-50003 - TA 12-50324. Our program was organized by FOA and the USDA in cooperation with several Land-Grant Colleges.

Our program was very adequate for the complexity of the subject matter that was of interest to the small group, which in itself was subdivided according to individual interests.

Our program, accomplished with the maximum precision, demonstrates the care with which the organizers acted. It provided, in a relatively short time, an objective view of the activities of agricultural education, research and extension work by various agencies and agricultural institutions.



OBSERVATIONS IN FUERTO RICO

Our study program started in Puerto Rico, enabling us to examine what, due to its small size, may be termed a miniature model or pilot plant. We had conferences with some of the most distinguished in the fields of our interest, beginning with the Secretary of the Department of Agriculture and the Chancellor of the University of Puerto Rico. We had extensive visits to laboratories, offices, factories and fields. They informed us in detail of the excellent organization of that associated free State.

The Department of Agriculture of Puerto Rico is an organization with close working relationships between the Federal and State governments and the university. Furthermore, although it maintains certain complimentary services, there is little or no duplication of efforts for the same purpose between the work of this department and that of other branches of the State and Federal governments.

The University directs all the activities of education, research and extension. There is a director for the College of Agriculture, one for Research, and one for the Extension Service.

Professors, researchers and extension specialists work cooperatively. In many instances, instructors in the College of Agriculture participate in research, the researchers are also involved in teaching and extension work, and the extension specialists are highly qualified in the field of education.

The College, highly respected by all, strives to supply the greatest possible number of qualified individuals in the fields of resident instruction, research, extension and other leaders in agriculture and related industry. Research continually strives to increase and improve the efficiency of production by means of new processes and basic information. Extension has the delicate job of promoting a high level of production by taking the new research information directly to the farmers. The faster research facts are transferred to practice the more appropriate the results will be. The extension specialist also has another important function; and that is, bringing to the attention of researchers problems of the producers that need to be solved.

This is the picture as we have observed it in the three important fields of work carried on by the university. However, we should also mention the fine relationship and fundamental work of the county agricultural agent, the home demonstration agent, and the 4-H Club agent.

Of those agencies related to local administration, we were deeply impressed by the work of the self-governing body responsible for the land distribution to the farmers (Authoridad de Tierras), and of the local services of community education.

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The first of these is doing an outstanding job of colonization—redistributing the land which exceeded the amount which could legally be owned by any corporation, namely, 500 acres according to a law of 1900, but not enforced until 1940.

The land that exceeded these limits was acquired in a friendly manner by the Land Authority with the purpose of using it in establishing cooperative farms and other forms of colonization, including the formation of communities for farm laborers.

The Office of Community Education, working in close cooperation with the Land Authority, helps the people solve their own problems. This help is given, nevertheless, in the form of orientation which opens the eyes of men to understand their responsibilities, their possibilities and their rights as members of the community and the State.

The philosophy of this help is based on establishing the individual as a part of the community to which he belongs. And the community, strengthened by the coherent action of good citizens, forms the principal part of the nation.

This understanding permits greater amplitude of action for the social services of Puerto Rico, which has already organized more than 200 rural housing projects for about 33,000 families.

Once the rural community is organized, the laborer, being a participant in it, has the facilities to acquire a lot for construction of his home and to have a small vegetable and flower garden. The government gives him a loan for five years, the value of which is given in materials. The community housing project is built on a large scale. It consists of free working teams, each giving two days of work per week.

We were fascinated by the rapidity in which the construction progresses where the worker earns his home and has the certainty he can choose (within a reasonable distance) where and with whom he can work.

All the activities, for all the benefits of the community, including those of public health and social service, are conducted in cooperation with the federal government (U.S. Government) which, in some instances, contributes a substantial part of the cost.

We also observed in Puerto Rico, the activities of the College of Agriculture and Mechanic Arts at Mayaguez where conferences were conducted mainly by various heads of departments responsible for offices and staff. Ther spoke to us about the important aspects of education, research and extension carried on there as well as their organization.

We also visited the USDA Field Experiment Station at Mayaguez and the Puerto Rican sub-stations at Lajas and Isabela.

Among other things, we saw in Lajas the work of cattle, poultry and swine improvement, using the local breeds. At Isabela there were interesting experiments with sugar cane and acerola - the West Indian Cherry - the fruits of which offer important material for the preparation of vitamin C.

We were also impressed by the work of the Economic Development Administration, and the affiliated Puerto Rican Industrial Development Company. The shortage of land and almost complete lack of nineral resources, coupled with the high density of population, makes the development of industry a vital factor on the Island. EDA - the Economic Development Administration - heads the entire program. It deals directly with industrialization, offering special incentives to assist new manufacturing firms in becoming established in Puerto Rico.

FRIDCO through judicious use of public funds, constructs buildings for industries being established, not as real estate ventures "per se", but as a necessity for the undustrial program. Its policy is to attract and help private enterprise to undertake this operation as much as possible, entering into negotiations with entities willing to undertake this kind of investment. FRIDCO also facilitates loan financing for new industries.

After concluding the 12-day program in Puerto Rico, we flew to the continent, arriving in Miami, Florida.

OUR OBSERVATIONS IN THE U.S.

In Florida, we observed beef cattle (Brahma and Devon) cross-breeding research as well as the interesting experiments with irrigated pastures at the State Sub-Experiment Station in Belle Glade.

At the Federal Field Experiemt Station in Canal Point, we saw work carried on with culture of sugar cane. We finished our program in Florida with a valuable visit to the State Citrus Experiment Station at Lake Alfred where our observations extended to private plantations and great establishments that industrialize the citrus fruits. Irrigation practices, fertilization and plant disease prevention were observed by us at Lake Alfred.

We then proceeded to Washington, D. C., where we stayed from April 28 to May 5. We had many conferences with FOA and USDA technicians and we received much valuable information with reference to the organization of these important agencies of the United States Government. We also learned about the purposes and functions of the State Land-Grant Colleges and we received orientation about carrying out our activities in the United States.

We visited the Association of Land-Grant Colleges in Washington, D. C., and the important Federal Agricultural Research Center located in Beltsville, in the State of Maryland.

In Beltsville, among the various projects of invaluable importance, we were especially interested in the projects of poultry improvement, nutrition of beef cattle, crossbreeding of Red Sindhi and Jersey, and in swine. The days of May 6, 7, and 8 were spent in New York City where we visited the Rockefeller Foundation and discussed with their distinguished directors the cooperative projects concerning educational and research institutions of our country. In the State of New York, we were from May 9 to 10 at Cornell University learning about the University's programs in agricultural economics, farm management, and artificial insemination. We also had an explanation of the University's activities and functions in general including an extremely clear discussion of student curriculum, system of credits, grades, required and elective subjects, and how the student is oriented in his free choice of subjects and course of study.

An intensive program was fulfilled at Purdue University in Lafayette, Indiana, where from May 11 to May 29, we received further detailed and valuable information about the Land-Grant College organization. We had lengthy conferences with a select group of scientists responsible for the University administration, its distinguished president, directors of the school of agriculture in conjunction with the offices of research and of extension, director of the school of home economics, professors of both schools, researchers and extension technicians, in such a manner that we received a general knowledge of the work the University does for the benefit of the rural people of the State of Indiana. We had additional observations, tours to experimental farms and extension services off the campus which culminated with the pleasant stay of two days with distinguished farm families in Hamilton County, Indiana, where we were received as guests.

From Indiana, we visited in Chicago for two days where we learned in detail of the function of the world famous market of livestock, the Union Stock Yards, Swift Packing Company and the Northern Trust Company.

In the State of Wisconsin, we visited, from May 31 to June 1, the University of Wisconsin in Madison, learning about their work, especially in rural sociology.

At Iowa State College, in Ames, Iowa, we had a useful visit on June 2, observing its organization and work, especially concerning forages and soils.

We were 10 days in contact with Colorado A & M College, at Fort Collins, mainly observing research in irrigated crop production as well as of dry - land farming and cattle ranches. We also visited the USDA Central Plains Experimental Range in Numa, Colorado, which does research for the better utilization of dry land.

We were 7 days visiting the work of the School of agriculture at the Oklahoma A and M College in Stillwater, with a tour to the USDA Southern Great Plains Field Station, in Woodward, and to the Experimental Station in Guthrie of the Oklahoma A and M College, familiarizing ourseleves of the college activities and of the Federal experimental station, especially in the fields of sorghum culture, cotton, soil conservation, irrigation and agricultural mechanization.

Summary of the observations we had the opportunity to realize in the United States:

- 1. The establishment of the Land-Grant Colleges with their organization of professional education in the various fields of production activities, and social improvement appears to us to have been the basis for the great strides of progress realized in the United States, beginning in the last century.
- 2. The complimentary steps unite professional education closely with research and extension work under the administration of the Land-Grant Colleges, resulting in exceptional efficiency, with economy and rapidity, of the application in the field of the knowledge originated at these institutions.
- 3. The establishment of home economics schools and their inclusion as an integral part of the Land-Grant Colleges or of the Universities, was, without question, a great step in the direction to integrate the North American women in the movement of national progress, especially in the rural life, where their contribution is outstanding.
- 4. Perfect is the constant relationship between the USDA and the Land-Grant Colleges, and, of these among themselves, from which derives much efficiency in education, research and extension service.
- 5. The religious spirit of the American people has decisive influence on the character of individuals for the benefit of the community and the nation as a whole.
- 6. The American youth has been properly prepared by the well organized grade and high school systems distributed throughout the nation and which gives an adequate background to enter the Universities or to start out immediately in practical life.
- 7. Great is the contribution in favor of youth education, of the 4-H Clubs, of youth vocational organizations and of the Future Farmers and Future Homemakers of America.

What in our judgment should be done in Brazil

According to our observations gathered in the United States, and, considering the present condition of Brazilian agriculture, we believe it is possible to develop in Brazil a program based on the following principles, relying on a good understanding between Federal, State and county authorities, universities, colleges, as well as of the valuable contribution of the professionals interested in raising the economy of our country.

- 1. To unite the Fomento Services in the States under one leadership with an educational and an extension service function. For this purpose establish a series of conferences between local and Federal authorities.
- 2. As was mentioned about the Fomento, likewise unite research under one leadership, including the organization of the States into appropriate geographic economic regions. This should be done also in cooperation with the Federal and State authorities.
- 3. Group the schools of agriculture, veterinary medicine and home economics into a university, so that they will be on the same campus, whenever possible. Also in this same direction, there should be established some short courses on subjects of special interest in the region.
- 4. Establish direct cooperation of the already existent experimental services with the university organizations.
- 5. (a) Create extension service in the rural universities in which so far there is no such program.
- (b) Establish short courses of weeks or days for the farmers and farm women.
- (c) The main effort should be to train university personnel for extension service by having them go out into the field and carry on demonstration projects as well as to conduct these short courses, for farm people in the University, with the constant idea in mind to improve rural conditions and family life.
- 6. (a) To establish a group of the best-known and best-liked individuals in a local environment in the counties and who, among themselves, will try to see what they can do to improve the surroundings of where they live and work.
- (b) The county agents (extension agents) will be in charge to give them the appropriate orientation in the simplest form possible in language as well as in the methods of improvement, trying to develop in the rural areas real leaders among their classes.

Thus the extension county agents will extend in simplified form the application of the technical principles of which the professors and researchers deal with in the university.

This, we believe, is the way to improve a nation by bettering the individuals in the rural community - the individual being the humble pivot on which the prosperity of the nation revolves and depends.

- 7. Once these preliminary steps are adopted, from our point of view, the rural universities will change into institutions with great influence and responsibility in education, research and extension, actively participating in all phases of interest in the improvement of rural Brazil, socially as well as in agriculture.
- 8. The immediate establishment of studies and plans for the organization of a few rural universities, oriented as outlined in the preceding paragraph 7, which would serve as pilot universities in different regions of the country. One or two of these units could be established by using the educational and research institutions already in existence in good geographical locations, with participation in this organization by the Federal and local governments.

Intensify the relations between farm people, rural universities and other agricultural services, to develop a better understanding of the benefits these institutions can contribute to the agricultural and social economy, and thus bring a stronger support to the programs of education, research and extension.

10. To continue to maintain a well informed Agricultural Attache in the Brazilian Embassy in Washington to serve the advantages of an increasing agricultural cooperation between the two friendly nations.

<u>Suggestions</u>: For an efficient cooperation between the United States and Brazil, with the purpose of establishing in our country a system of professional education allied with research and extension, we suggest:

- 1. That new groups of directors of colleges as well as of Experimental Stations come to the United States. The number of participants, from our point of view, could be from 10 to 12 individuals.
- 2. To maintain, by means of various organizations, a system of scholarships for the training of Brazilian technicians, especially those graduated in agriculture, veterinary medicine and home economics.
- 3. The organization of special cooperation programs between the United States and Brazil, with the purpose of providing in one or more rural universities in different geographic-economic regions of Brazil, the means of implementation of the recommendations made in this report. This would be done according to the 8th paragraph of our conclusions. In this cooperation we include the participation of American technicians.

- 4. That the United States send to Brazil, in the proper time, men of experience from the Land-Grant Colleges with the purpose to observe, on the ground, the progress of the accomplishments of the Brazilian technicians that were trained in the United States, thus helping those who have responsibilities in the programs of cooperation, and at the same time collecting useful information with reference to these programs.
- 5. To have a meeting, in Brazil, where the directors who participated in the observation programs in the United States, as well as the Brazilian technicians also trained in the United States, to have full discussions of these programs and the application of the experience gathered in such programs in the favor of Brazilian agriculture progress. In this meeting, or series of meetings, representatives of FOA, USDA, representatives of the government of Brazil and of the States interested should participate.

OUR THANKS

We were greatly benefited in our study-trip and observations by the constant assistance and excellent cooperation of those responsible for our program. Therefore, we express our appreciation to the:

Department of Agriculture
Foreign Operations Administration
Rockefeller Foundation
Universities and College of: Purdue, Cornell,
Wisconsin, Iowa, Colorado, Oklahoma, Texas,
and Puerto Rico (Rio Piedras and Nayaguez)

for their friendly dedication shown to us.

Our many thanks to the hospitality of the Indiana farm families receiving us in their homes, thus permitting us to have a better knowledge of the American rural way of life and the generosity of their people.

We are thankful to the Brazilian authorities that, directly or indirectly contributed in carrying out the American project concerning this our study-trip, and the "Escritorio Tecnico Brasio-Estados Unidos" in Rio de Janeiro to the representatives of the American government in Brazil, for their interest and effort.

We thank the constant assistance of our diplomatic representation in Washington, emphasizing the valuable cooperation of our Agricultural Attache in the Embassy.

The interpreter that accompanied our group, Mr. Lee Zeroth, served with efficiency, conducting himself, always, as a good companion and friend.

We were deeply impressed by the friendly welcome which, throughout all our trip, we received from the American people.

/s/ Renato Ramos de Farias

/s/ Ruy Alves de Araujo

The participant Renato Ramos de Farias will continue his program in Mexico and Costa Rica for an additional two weeks.

The participant Ruy Alves de Araujo will remain in the United States until he concludes his program in late November, 1955.

The participants Agostinho B. da Veiga and Gastao Dias de Castro were unable to conclude the program due to illness.

